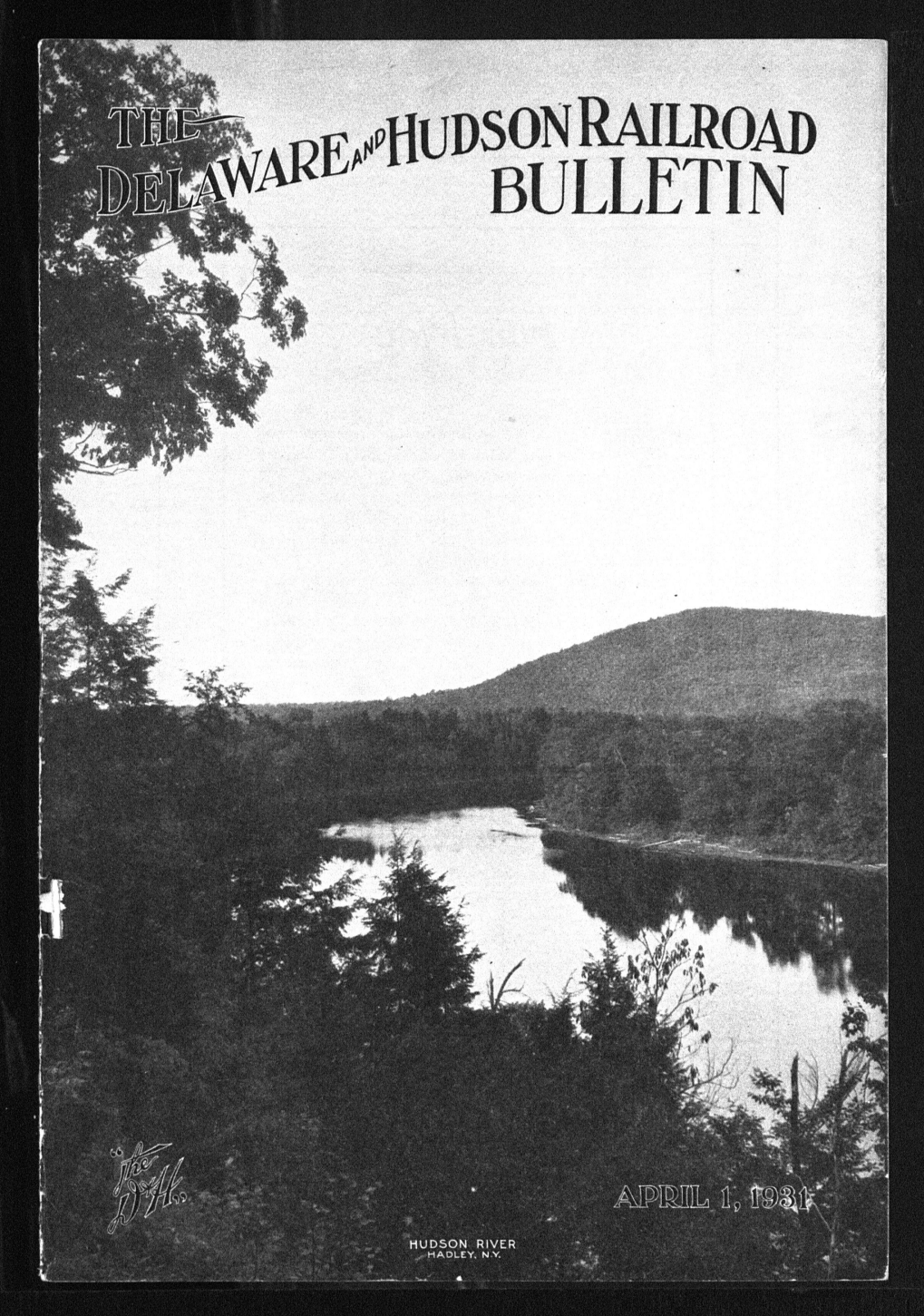




THE DELAWARE^{AND} HUDSON RAILROAD BULLETIN

*The
D. & H.*

APRIL 1, 1931

HUDSON RIVER
HADLEY, N.Y.

Fair Play



EITHER rail transportation in general, nor we of the Delaware and Hudson in particular, ask for preferential treatment. We ask not that buses and trucks be banished from the road or that the same deadening control we labor under be put upon them, but let us compete as freely. We do not ask freedom from furnishing simple and complete reports to regulatory bodies, but we do ask that we not be forced to continue sending tons of paper covered by millions of figures taking hundreds of thousands of man-hours to prepare, and entirely too voluminous for any one to read. We do not ask that criticism, constructive or admonitory, when deserved, be withheld, but we ask that such criticism be fair and for the betterment of the service, not for political prestige. We do not seek rates which will destroy business in communities, but we are entitled to rates which will compensate the lender of capital invested and attract new capital which will maintain the property and equipment, allowing for necessary expansion and the creation in good times of a fund against poor times. And we unhesitatingly demand for management an exhibition of that spirit of fair play which is possessed by the great majority of our citizens and guaranteed by our constitution.

—COL. J. T. LOREE,

Vice-President and General Manager.



The
DELAWARE AND HUDSON RAILROAD
CORPORATION



BULLETIN

Vol. 11

Albany, N. Y., April 1, 1931

No. 7

Owned Boat on Champlain Canal

"Ran" For Years Over Old Water Route Between Montreal and New York City

DURING the eighty-four years of his life as a resident of Whitehall, N. Y. JAMES WHALEN, SR., retired Delaware and Hudson employee, has seen this village served by four successive means of transportation: the stagecoach; boats, both steam and sail; the railroad; and today, although to a limited degree, the airplane. At the time of MR. WHALEN'S birth, February 8, 1847, Whitehall depended entirely upon stagecoaches and sail-, steam-, and canal-boats for communication with the outside world. Stage lines reached out in all directions to connect the village with other near-by communities.

The doom of the stage-coach was sealed on December 10, 1848, however, when the Saratoga and Whitehall Rail Road, which later became part of The Delaware and Hudson lines, finally reached Whitehall. Though MR. WHALEN was too young to recall that event, he well remembers having heard his father tell of the arrival of the first train from the Capital District. The railroad soon superseded the stagecoach in transporting passengers, freight, and mail between Whitehall and the cities to the south.

Even before the opening of rail service, however,

Whitehall had assumed an important role as a shipping center by reason of its location at the southern end of Lake Champlain. Located as it was at the northern terminus of the Champlain Canal, it was the logical point at which to inter-

change the cargoes of lake and canal-boats. This also gave it an advantageous position as a manufacturing town. In fact, there were already three foundries, two planing mills, three planing and saw mills, a tannery, and two sash and door factories in operation when the railroad reached this community of 600 people.

As a "hired hand" and, later, as owner and operator of a canal-boat, MR. WHALEN spent his earlier years en route between New York and Montreal. There were "stations" on the canal at Fort Ann, Fort Edward, Schuylerville, Mechanicville, Troy, and Albany. The boats left Whitehall with two-man crews, the driver, whip in hand, urging the team of two or three

horse, or mules, along the narrow tow-path at the side of the waterway. The beasts, harnessed side by side or in tandem, plodded steadily along. The steersman stood at the rudder in the stern, guiding the craft through the narrow channel, and avoiding other boats and various projections



JAMES WHALEN, SR.

The Delaware and Hudson Railroad Bulletin

from either bank. When the driver became tired of walking he exchanged positions with the steersman, alternating in this way until the first station was reached.

Here another crew, with fresh horses, took the boat over, affording the crew and animals relieved an opportunity to rest. The horses were first fed and bedded in the barn which adjoined the station. Then the crew ate and retired in the boarding house maintained at the canal company's expense.

At each station a list of crews was maintained, similar to the "extra list" on the railroad, each crew taking its own turn going out on the line when needed, no matter which direction the waiting boat was going. At times, when business was slow, the rest periods between "runs" were long; when traffic was heavier, they went out shortly after their arrival. Under this system canal men never knew when they would be home or even where they would be from one day to the next. At the end of the season each man received his pay for all the time he had worked, at the rate of \$10. per month, no matter how many trips he had made or how far he had traveled.

After a number of years spent in the employ of the canal companies, MR. WHALEN purchased a boat of his own which he operated between Ottawa, Three Rivers, Montreal, and Sorel, and Troy, Albany, and New York. The principal commodity then transported on the southward trips was lumber. On the return voyage various items were carried including an occasional load of coal from Whitehall to Canada.

As a private boat operator MR. WHALEN had his own horses and other necessary equipment, and hired a driver and steersman. In order to "make time" he took his turn driving and piloting, enabling the other two members of the crew to rest.

On a trip from Ottawa to New York, with a cargo of lumber, at the rate of \$8. per 1,000 feet, MR. WHALEN would realize a profit of approximately \$200. Considering that such a trip consumed but eight days, it is readily understandable that canalling was a prosperous venture for a private boat owner. The rate from Canada to Albany, too, was \$7. per 1,000 feet, which made such a "run" likewise profitable.

From Ottawa, the canal boat was towed, by tug, down the St. Lawrence to Sorel, thence up the Sorel River and Chambly Canal to St. Johns. From St. Johns to Whitehall they were taken in tow of another tug for the run down Lake Champlain to Whitehall. Here horses were substituted for the balance of the trip down to Troy.

Leaving Whitehall, the two-and-one-half-day trip to Troy was made with MR. WHALEN's team and a hired driver and steersman. It was the practice to drive for about six hours and then stop to feed and rest both horses and men. At night the teams were bedded in privately owned barns along the canal, while the men slept in berths aboard the boat. On account of the short season, however, it was customary to drive from 2 a. m. until 10 p. m., allowing only sufficient time for resting during the intervening 20 hours. At Troy a tug was again hired for the balance of the trip to Albany or New York.

It cost only about \$20. to hire a tug from a Canadian city to St. Johns; \$20. from St. Johns to Whitehall; \$30. toll through the Champlain Canal; and \$20. from Albany to New York. After paying the driver and steersman, as well as all other items of expense, the owner still had a substantial sum left for himself.

When the present barge canal was built, however, larger boats were put in operation. This, in addition to the decreased price of lumber, caused the failure of many individual boat owners.

Long before that occurred MR. WHALEN had tired of the canal business and found other employment. In the early seventies he decided to look for another position. At last an opportunity offered for him to enter the more modern field of transportation as presented by the railroad; he was hired by the Delaware and Hudson agent at Whitehall on January 1, 1875, to work in the local freight house. Although he had to work from 6 a. m. until 8 or 9 o'clock at night, seven days a week, for \$40. a month, he found that preferable to the longer hours and many hardships of canalling.

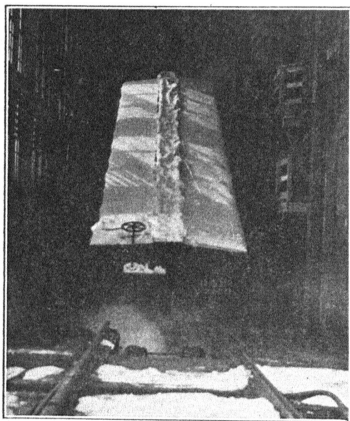
Nine months later, on September 1, 1875, he was hired by Conductor "Pat" Comfort, as trainman on the first freight train to make the complete trip from Whitehall to Plattsburg over the New York and Canada Railroad, the line which now forms the southern part of our Champlain Division.

To those who feel that our manifest freights of today are operated at high speed, MR. WHALEN would like to say that even in the late seventies they operated freight trains between Whitehall and Plattsburg at a speed of from 35 to 45 miles per hour. On one night in particular with eleven box cars his crew covered the 50 miles between Port Henry and Plattsburg in just one hour. The following summer Superintendent Theodore Voorhees called him to the office to offer him the position of Conductor on a passenger train. At

(Concluded on page 109)

Loading Anthracite in Box Cars

Rocking Device Facilitates Rapid Level Loading of Closed or Open Top Equipment



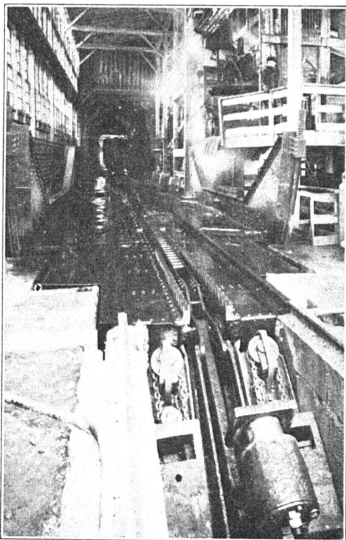
Car Tilted for Loading

MOST people are of the opinion that coal when moving over rail lines, is invariably transported in open-top cars. At one time this was a fact; however, because of requests by consignees, located in both Canada and this country, that anthracite be shipped in closed equipment, a novel system for loading such consignments has been placed in operation at the Coal Brook and Olyphant breakers of The Hudson Coal Company. The reasons for this demand on the part of anthracite buyers were that there were formerly losses in transit due to pilferage and overflow, also difficulty was encountered in thawing out and unloading frozen shipments in open-top equipment. The solution seemed to lie in the use of sealed box cars for such consignments.

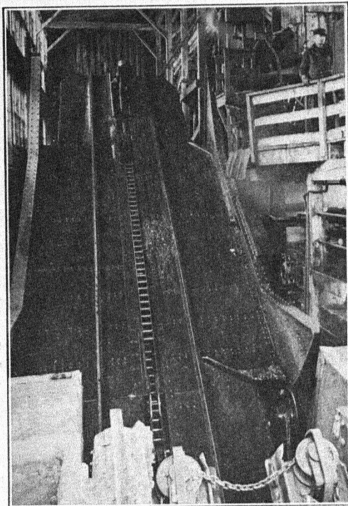
To meet this condition, Ottumwa box car loaders, which now enable two men to load a car in from five to eight minutes, were installed at the two breakers mentioned above. It has also been found that stock cars can be used to advantage in transporting anthracite by boarding them up on the inside to their load limit.

The track leading through the loader is built on a slight incline to permit the movement of cars by gravity after they have been placed by yard or mine crews. When the operator is ready to begin loading, his helper places a car on the electrically operated steel cradle. The cradle is built in the form of a segment of a circle; the car rests on the straight line or chord formed by the track, and the entire mechanism is rocked lengthwise by means of gears which engage teeth on the curved rack underneath.

As soon as the car is placed on the device a lock bumper, which presses against the car couplers with such force that the car is automatically centered and held rigidly on the cradle, is elevated



Normal Position of Loader, Bumper in Lower Right Corner



One Man Controls the Loading From
a Nearby Platform

from a pit at each end. The bumpers are held in position by heavy steel teeth at the ends of the cradle.

Anthracite is conveyed on a rubber belt, four feet in width, from the breaker pockets to the point of loading, the operator controlling the flow of coal and selecting the proper size by means of a series of levers. Before it enters the car, the coal is screened and washed to remove any dust which may remain after passing through the breaker.

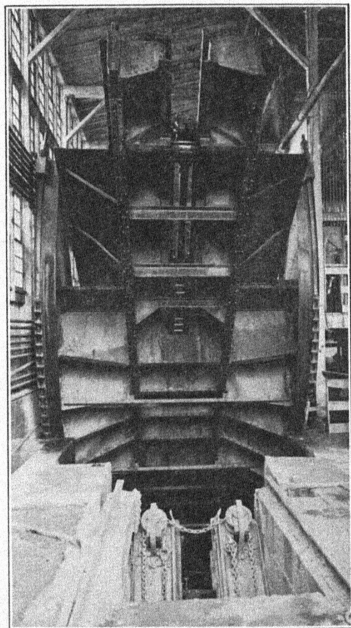
On an elevated platform, opposite the car door, with the various controls in easy reach for locking the car in place, tipping the cradle, starting and stopping the belt conveyor, opening and closing the feed gates, and regulating the flow of water, stands the operator.

Once the car is placed on and secured to the table, a procedure which takes less than a minute, the actual car loading begins. The anthracite, which flows from the loading chutes at high speed, is directed into one end of the car. Immediately the cradle is tipped slightly, and as the coal continues to run, the pitch is increased until one end is filled to the desired height. This is governed by the weight capacity of the car, indicated by the upper limit of the boarding across the car door.

The cradle is then slowly returned to a horizontal position, although the loading continues at a reduced rate to prevent the coal already placed in one end from flowing back toward the door. The car is then tipped in the opposite direction and the contents is "built up" from the center to the other end. The pressure of the entering coal is increased so as to hold the load in place until the capacity of the car is reached, whereupon any surplus is made to roll out of the doors by "rocking" the cradle slightly after its return to normal position.

After an inspection by the operator to make sure that the car has been loaded properly, the lock bumpers are released, and the car is permitted to roll out at the other end of the breaker.

An additional advantage of this system is found in the fact that open-top cars may also be loaded on the cradle by using it as a stationary platform, and simply employing a lower chute to direct the coal from the belt conveyor to the car.



Under Side of Loader

What's in a Name?

A Book by Any Other Title May be as Interesting, But it's a Whole Lot Harder for the Librarian to Locate, so "The Bulletin" Will Print Lists of Those Available to Employees of Our Company

MANY are the trials of librarians in their attempts to furnish books requested by readers who get the sound but not the sense of the titles. The young lady who asked for Darwin's "Oranges and Peaches" instead of *Origin of the Species*, will long be remembered.

The *Boston Transcript* recently published the following list illustrating the sort of thing which makes librarians laugh or tear their hair:

"Says a Man to Lily," (*Sesame and Lilies*, Ruskin);

"Jean's Universal Rounders," (*The Universe Around Us*, by Jean);

"Firework King," (*If I Were King*, McCarthy);

"The Old Pie Bus," (*Old Pybus*, Warwick Deeping);

"The Red Boat," (*Rubaiyat*, Omar);

"Juice of Life," (*Use of Life*, Lord Avebury);

"Farmer's Suitable Pocketbook," (*Pharmaceutical Pocket Book*).

To assist Delaware and Hudson readers who wish to select reading matter from the company library in Albany, MRS. SMITH has prepared a list giving the correct titles. This has been divided into groups, by subjects, those listed under History and Biography being printed in this issue of *The Bulletin*. Other groups of titles will be included in subsequent numbers.

Arrangements have now been made to enable employees outside of Albany to obtain books from the library by mail. Reference to the printed lists will insure the use of the correct title and reference number when requesting books either by mail or in person.

BIOGRAPHY

- 920 Abraham Lincoln, Lord Charwood.
- 920 Disraeli and Gladstone, D. C. Somervill.
- 920 Edison, *The Man and His Work*, George S. Bryan.
- 920 *Fathers of the Revolution*, Philip Guedalla.
- 920 *Franklin's Autobiography*.
- 920 Joseph Pulitzer, *His Life and Letters*, Don C. Seitz.
- 920 *The Life of Pasteur*, Rene Vallery-Radot.

HISTORY

- 917.47 *A City's Danger and Defense*, Samuel C. Logan.
- 360 *Historical Statement of American Railway Association*, 1921.
- 917.47 *History of Albany and Schenectady Counties*, Illustrated.
- 656 *History of American Railways*.
- 917.47 *History of Clinton and Franklin Counties*, Illustrated.
- 926 *History of The Delaware and Hudson*, (A Century of Progress, 1823-1923.)
- 926 *History of The Delaware and Hudson*, (Corporate.)
- 917.47 *History Essex County*, Watson, 1869.
- 917.48 *History of the Flood of March, 1913*, C. W. Garrett of P. R. R.
- 917.47 *History of Lake Champlain*, Peter S. Palmer.
- 352 *History of Natural Canals—1905*.
- 917.47 *History of Oneonta*, Willard V. Huntington, 1891.
- 917.47 *History of Schenectady*, Sanders, 1879.
- 917 *History of Travel in America*, Dunbar.
- 917.48 *History of Wilkes-Barre, Pa.*, 1896-1906.
- 917.47 *History of The Great Riots and The Mollie Maguires*, Edward W. Martin.
- 917.47 *Lake Champlain and Its Shores*, Murray.
- 917.47 *Landmarks of Albany County*.
- 917.47 *Landmarks of Oswego County*.
- 917.47 *Modern Babes in the Wood*, (History of The Adirondacks.)
- 917.47 *Picturesque Burlington*.
- 917.47 *Pioneers of Unadilla and Reminiscences*, Halsey.
- 917.47 *Reminiscences of Saratoga*, Stone.
- 926 *Summer Paradise in History*, (Delaware and Hudson Company.)
- 917.47 *Three Centuries in Champlain Valley*.
- 917.47 *Troy,—1790*.

(Other Groups Will Follow)

Lady: "Now, are you quite sure this salmon is fresh?"
Fish Dealer: "Fresh! Why, bless yer, mum I've just cut 'im up to keep 'im from jumpin'."

What is a Dollar Worth?

Decreased Cost of Living, Due to Lower Commodity Prices, Makes it Worth \$1.05 Today, Compared With 84 Cents in 1920, or \$1.63 in 1914

THE accompanying chart shows changes in the total cost of living for several years at post-war standards and for some of the principal components of that cost from 1914 to December, 1930. It also shows for the same period changes in the purchasing value of the dollar compared with 100 cents in 1923.

In the early part of the period in question, cost of living was subject to violent fluctuations. The rapid rise soon after 1914 reflected the disturbance of the settled economic order wrought by war. Higher prices at retail for goods and services before incomes had been adjusted to the higher price level entailed embarrassment and sometimes distress to those dependent upon salaries and wages.

Even more sudden was the fall of retail prices in 1921 and 1922, which brought the cost of living to a point lower than in any year since the war until the year 1930. A slight rise in the cost of living took place in 1923 and continued until 1925, after which it gradually subsided until in 1928 it had returned to the 1923 level. The changes during this period were of minor importance.

Significant changes, however, occurred in the year 1930. From December, 1929, to December, 1930, the decline in the total cost of living was 8.0%. To a greater or less extent all of the component elements of household expense shared in this decline. Retail food prices which subsequent to 1924 had remained above the 1923 level did not indeed fall to that level until the middle of 1930. More pronounced was the fall of clothing prices during the year. It may, however, be noted that the year opened with costs for housing and for fuel and light well below the 1923 level, but that during the year, except for seasonal changes in fuel and light, they moved to lower price levels.

This decrease in the cost of living has contributed to moderate the difficulties arising in the close of the year 1930 from reduced incomes.

"Total cost of living" is represented by a weighted average of the several indexes indicated which are combined with relation to their relative importance in an estimated post-war budget of the industrial wage earner.

"Food" represents the cost of 43 items of usual consumption, computed on the basis of average retail prices in 51 cities.

"Housing" means the rental charge for a house or unheated apartment of four or five rooms with bath, such as is usually occupied by wage earners.

"Clothing" costs are based on the average retail prices of 29 selected articles of yard goods and wearing apparel.

"Fuel and Light" represents the average cost to the domestic consumer of coal, gas, and electricity.

"Sundries" combines the cost of a large group of miscellaneous goods and services not elsewhere specified, such as car fares, doctor's fees, toilet articles, insurance premiums, contributions to church and charity, organization dues, candy, tobacco, reading matter, recreation, etc.

"Purchasing value of the dollar" shows at each date the relative quantities of goods purchasable with \$1.00, the 1923 dollar of 100 cents being taken as a standard. The figure charted is the reciprocal of the cost of living index. As charted, the figure represents in the earlier years of the series midyear prices, in later years an average of three months in different periods of the year and more recently the average of 12 months.

Food prices are from the United States Bureau of Labor Statistics. Other data are from the National Industrial Conference Board.

The Lake of Blood

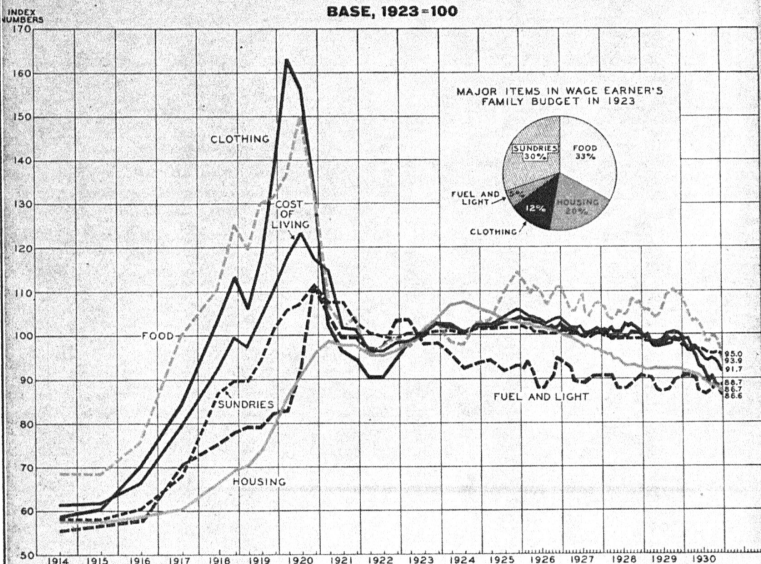
THE famous lake of Morat, Switzerland, is again displaying its occasional habit of turning to blood—a phenomenon which never fails to arouse superstitious awe in the neighborhood, frighten the sinful into some sort of rectitude, and effect miraculous cures. Nonmystical biologists explain that the color is caused by exceptional growth under certain favorable conditions of a tiny red plant of the algae family which is always in the water of the lake but is rarely noticeable. This plant, first cousin to the green scum seen on stagnant water, often grows on arctic snow and on stale bread.

—World's Work.

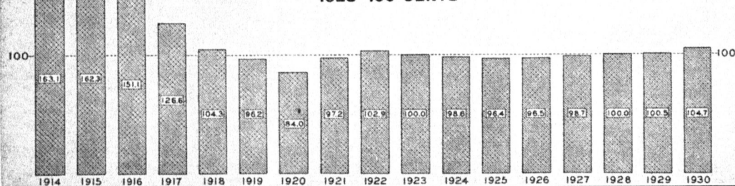
COST OF LIVING CHANGES UNITED STATES, 1914-1930

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NATIONAL INDUSTRIAL CONFERENCE BOARD, INC.
NEW YORK CITY

CHANGES IN MAJOR ITEMS OF COST OF LIVING BASE, 1923=100



PURCHASING VALUE OF THE DOLLAR BASED ON COST OF LIVING 1923=100 CENTS



The original chart, in colors, showed "Cost of Living" as a solid black line, while "Clothing" was indicated by a red line, both appearing black in the above illustration. Similarly, "Sundries" and "Fuel and Light" are both shown by black dotted lines. "Sundries" being the higher since 1917 except for a few months in 1922.

The
Delaware and Hudson Railroad
CORPORATION
BULLETIN

Office of Publication:
DELAWARE AND HUDSON BUILDING.
ALBANY, N. Y.

PUBLISHED semi-monthly by The Delaware and Hudson Railroad Corporation, for the information of the men who operate the railroad, in the belief that mutual understanding of the problems we all have to meet will help us to solve them for our mutual welfare.

Permission is given to reprint, with credit, in part or in full, any article appearing in THE BULLETIN.

All communications should be addressed to the Supervisor of Publications, Delaware and Hudson Building, Albany, N. Y.

Vol. 11	April 1, 1931	No. 7
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Ten Years Old

WITH this issue *The Bulletin* celebrates its Tenth Anniversary. From its beginning as a single page leaflet, printed on one side only, a Bulletin notice of the usual sort, in April, 1921, it has successively increased to two pages, late in the same year; four in January, 1922; and eight in November of that year. In January, 1925 *The Bulletin* was first published in the size and form which has been continued to this time.

Who'll Get Yours?

WE find from time to time that there are misunderstandings on the part of our employees with relation to certain phases of the Group Insurance Plan.

It has recently come to our attention that some employees are under the impression that when they complete two-years' service and are issued the necessary certificates covering the different options, that the original certificates which they previously held under the six-months' plan are of no value. This is not a fact and the two-year certificates, when received, should be placed with the life insurance certificate issued under the six-months' plan.

It is also desired to suggest at this time that you should examine the certificates now held to determine if the proper beneficiary is shown in accordance with your wishes, for the reason that the person previously named may have died. In that case, unless a new beneficiary is named, the

life insurance benefits would revert to your estate, which would necessitate the appointment of an administrator or administratrix, as the case might be.

If you desire to have your beneficiary changed, request form G. L. I. 20 from your superior, who will assist you to prepare the form and forward, thru channels, to the Personnel Department for the proper change.

The Power of Personality

IT'S a wonderful thing—this thing that we call personality—which includes your appearance, your manners, your voice, your conversation, everything about you that impresses you on those with whom you come in contact as an individual, different from every other person in the world. You do not have to be beautiful to have a charming personality. You do not even need to be wonderfully clever, but you do have to be careful, courteous, clean, well informed, ready always to be at your best and to give people your best. Personality has paved the way to fortunes.—S. Ronald Hall.

Record Pass-Holders

MENTION was made, on page 15 of our issue of January 1st, of John B. Wilbor, a railroader who held 47 annual passes during the year 1857. Merritt Clark, Treasurer of the Rutland and Washington Railroad Co. (now part of the Delaware and Hudson) held no less than 80 such passes for the year 1865, exceeding Mr. Wilbor's record by 23, according to W. J. COUGHTRY, Recorder, who located the original passes in 1922. They were, at that time, framed and hanging on the wall in the Wilson Clothing Company store in Rutland, Vt.

Subsequent to the receipt of MR. COUGHTRY'S letter, Col. Ellsworth Vrooman of Schoharie sent a clipping from the *St. Petersburg (Fla.) Independent*, describing a still more extensive collection of railroad and steamship passes then on display in the lobby of the Detroit Hotel.

The passes, 95 in number, were issued to Col. Vrooman in 1883, 48 years ago, when he was Manager and General Passenger Agent of the Schoharie Valley Railroad, an eleven mile line between Schoharie and Middleburg, N. Y., now part of Delaware and Hudson System.

Some of Mr. Clark's 80 Passes of 1865



Between Mr. Clark and Col. Vrooman, The Delaware and Hudson seems to have a good cause for claiming a championship on a system basis.

Savings the Basis of Independence

Anticipate Future Comfort and Achievement Instead of Merely Saving for Rainy Day

EVERY man entertains a hope in the back of his mind that some day he need not work so hard. Perhaps he sees himself ready to retire at 60, or 55, maybe even 50. It depends largely upon the point of view. At 20, the 50 mark looms far away, like some distant land, never to be reached. But it arrives soon enough. And in these latter years we have adopted the happier philosophy that no one really need grow old in spirit, so that the question as to when we shall retire is reduced to one of financial independence.

The working life of the average man or woman usually begins at 20 years of age. For the next five years it is plain that a worker in any field cannot expect more than a modest income. But for the following 25 or 30 years it is fair to expect an income that will allow a margin for satisfactory savings.

There was a time when the savings doctrine went hand in hand with long faces, a dismal present, and a mournful outlook. Then a large part of the public saved for calamity only. Today we save for pleasant prospects—for homes, for education, for the things that make life happy. Saving for Christmas, for travel and vacations has become a recognized goal. But the basis of all savings should remain the accumulation of enough capital to insure financial independence. A savings account is the indispensable basis.

When the idea of saving for a rainy day is dispelled, when we have ceased to anticipate misfortune as the only purpose for saving, but look forward to a future of comfort and achievement made possible by our savings, then we have arrived at the threshold of independence.

This state of independence need not be deferred until the saver approaches the end of his working years. Instead, the road may be said to open ahead the moment that the first savings deposit has been accomplished. From that day onward every dollar put to work through the medium of savings will fortify this splendid state of independence.

But, the reader may say to himself, how is it possible for me to accumulate enough money by saving a few dollars at a time to enter this happy land? The way systematic deposits of small amounts grow to sizeable sums is a financial principle that never fails to impress the mind. Suppose that we think of a young man or woman

beginning to save at the age of 20, with a view to later independence. If such a person would deposit \$10. a month every month from the age of 20 to 50, the sum would amount to \$6,833.01, with interest at four per cent compounded semi-annually. But if the same person should not begin to save until the age of 30, and then put aside \$20. a month, it would amount to \$7,290.51, at the same rate of interest. Or \$30. a month saved regularly from the age of 40 to 50, would then total \$4,399.04. Although neither of these sums could be termed an adequate capital to assure complete independence, such an amount certainly would be a comfortable foundation and might be increased as opportunity permitted.

The proof that millions of Americans have independence may be seen from the accumulation of savings now in their hands. The first efforts to encourage the practice of saving were made in this country more than 100 years ago by the mutual savings banks, which operate upon the principle of the mutual insurance company. All savings banks in the state of New York are so regulated by law. The whole group of these institutions, established in 17 states, now have almost \$10,000,000,000 in deposits belonging to 12,775,000 depositors. The average of all these accounts is \$740.85.

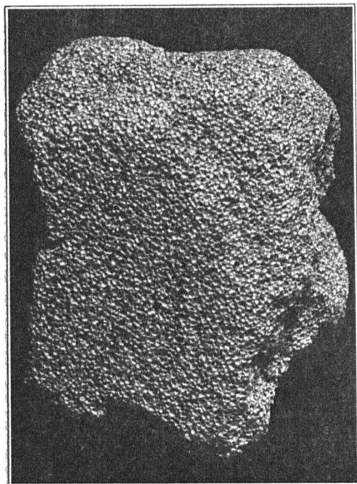
But the total of savings deposited in banks of every kind amounted to \$28,500,000,000 on January 1. That sum was more than \$4,000,000,000 greater than the entire national wealth of the country in 1870. The money is useful not only to the owners and their families, but in the upbuilding of the nation. Its re-investment in public and private enterprises serves to carry on the business of the country, so that every dollar placed in a savings account earns independence for the saver and does its individual part to develop a greater America.

The importance of this accumulation of small capital to the railroads of the country may be seen from a few figures. About \$1,600,000,000 of the money held by mutual savings banks is invested in railroad bonds. When is it considered the entire capital of the railroads amounts to about \$26,000,000,000 it becomes evident that a considerable fraction of each dollar deposited in such institutions is immediately put to work in the form of railroad capital.

Aerocrete

A New Building Material, Lighter Than Concrete, a Better Heat and Sound Insulator

TURNING to the humble baker of bread for inspiration, research has produced a building material of concrete which is composed of countless minute cells produced by a chemical process akin to the action of yeast in bread dough.



"Countless Minute Cells"

Aerocrete, as this new material is known, was originally developed by a Swedish scientist, who was able to make a serviceable substance, although it would not withstand great weight. Two years ago aerocrete was introduced in the United States and, following studies at Columbia University, it has been improved so that it now meets the most exacting fire and water-load tests required for flooring materials in New York City.

Its components are Portland Cement, sand, and small quantities of lime, aluminum powder, and soda. The aluminum powder in an alkaline solution causes a chemical reaction when this mixture is poured in a thick liquid form, and the hydrogen liberated is the leaven that forms the cellular structure. The "rising" process is completed within

an hour, when hardening sets in. Control of the ingredients makes it possible to vary the expansion from 50 to 150% of the original volume.

Recent tests of the new material showed that a floor of aerocrete $4\frac{1}{2}$ inches thick kept a temperature of 139 to 207 degrees on its upper surface during the last hour of a four-hour fire burning beneath it at a temperature of 1,825 degrees F. In a fireproof building the temperature of a fire will rarely exceed 1,700 degrees.

The advantages claimed for aerocrete as a structural floor are its lightness (its weight is 20 to 75% that of concrete), high-heat insulating value, and sound-deadening properties. It is estimated that it will reduce by one-fourth the weight of steel required to support a building, a reduction comparable to that afforded by welding.

The high cost and limitations of present building materials, fire hazards, and the expense of maintenance have been cited as indications of the need for development of new and cheaper materials adapted particularly for construction of homes. For half a century dwellings have been constructed of the same materials and by the same hand labor. Quantity production engineers have not yet found a way to apply their methods to home building. Yet it would seem the \$5,000,000,000 spent annually for home construction; the tremendous loss by depreciation, amounting to 10% the first year; and the \$500,000,000 annual write-off in this country because of flimsy construction, offered a worthy incentive to produce better materials and devise better methods.—*The Technology Review*.

Owned Boat on Champlain Canal

(Continued from page 100)

that time Mr. Voorhees remarked that any man who could cover that distance in an hour, as was shown on the dispatcher's train sheet, "should be in passenger service."

MR. WHALEN continued in the train service until the night of February 14, 1898, (the night the battleship *Maine* was sunk in the harbor at Havana, Cuba) when he was injured in an accident at Mohawk. From then until April 1, 1925, when he was pensioned, MR. WHALEN held various positions in the Maintenance Department.

MR. WHALEN has nine living children, 39

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grandchildren, and 15 great-grandchildren. Of his three daughters, two live in Whitehall and the third in Albany. Five of his six sons are now employed by The Delaware and Hudson Railroad: MICHAEL is a conductor; THOMAS and EDWARD are enginemen; JOHN is a fireman; and JAMES, JR., is a Bridge and Building Department foreman at Plattsburg. Although the sixth son, David, was formerly employed by our company, he is at present unable to work on account of poor health.

Too Much System

O H isn't it great to be "up to date"
And live in this year of grace,
With a system and place for everything,
Though nobody knows the place.

We've an index card for each thing we do
And everything under the sun;
It takes so long to fill out the cards,
We never get anything done.

We've loose leaf ledgers for saving time
The Lord knows what they cost,
When half our time is spent each day
Hunting for leaves that are lost.

We've stenographers who spell like H—
And make us swear and cuss,
When we are not dictating to them,
Why they are dictating to us.

And sectional this and sectional that
(We'll soon have sectional legs);
I dreamt last night that I made a meal
On sectional ham and eggs.

I dreamt I lived in a sectional house,
And rode a sectional "hoss,"
And drew my pay in sections from
A sectional "section boss."

O isn't it great to be "up to date"
And live in this year of grace,
With a system and place for everything,
Though nobody knows the place.

—ANONYMOUS.

How Well Have You Read?

At what time in the past 15 years was the cost of living lowest? Highest? (Page 105)

At what age does the working life of the average man or woman usually begin? (Page 108)

Should trucks and buses be banished to help railroads? (Page 98)

What new material may be of great importance in future building construction? (Page 109)

What appears to be the largest number of annual railroad and steamship passes ever held by any one person? (Page 106)

How much of an income can a young man or woman expect to receive during the first five years of employment? (Page 108)

What causes water to appear to turn to blood? (Page 104)

Why are new building materials needed for the construction of homes? (Page 109)

How can the railroads be aided by the government without subsidy or other expense to taxpayers? (Page 98)

What was the total amount of savings deposited in banks on January 1, 1931? (Page 108)

How do you arrange to have your insurance paid to another person than the one now named in your policy? (Page 106)

How much is spent annually for home construction? (Page 109)

What five things are necessary to a good personality? (Page 106)

What is the entire capital of American railroads? (Page 108)

Why is some anthracite shipped in box cars? (Page 101)

What causes variations in the cost of living? (Page 104)

Can employees obtain books from our library even if unable to get them personally? (Page 103)

When and where was the battleship Maine blown up? (Page 109)

Do the railroads object to criticism of any kind? (Page 98)

What was the national wealth of this country in 1870? (Page 108)

Wifey—"I suppose the strongest men in the world are out west?"

Hubby—"What on earth makes you think that?"

Wifey—"Well, don't they hold up trains there?"

"And your husband has a prosperous business, I suppose?"

"Oh, yes, he is taking in a lot of money. Only last night he told me a receiver was to be appointed to assist him."

Clicks from the Rails

Travel Record

Captain George B. Kirwan, skipper of the Pennsylvania Railroad Steamer *Maryland* has made more than 36,000 "voyages" across Chesapeake Bay between Norfolk and Cape Charles, Va., in his 32 years of service with the railroad. Capt. Alfonso Sedler of the *Virginia Lee* has made 27,000 trips across the bay in his 40 years of service. Their combined water travel totals more than 2,268,000 miles. The ferries connect Norfolk with the Pennsylvania's rail lines terminating at Cape Charles.—*Mutual Magazine*.

* * *

Feathered Jealousy

Employees of the Los Angeles Railway's South Park Shops are daily witnesses of an unusual battle; a female sparrow fights her own reflection in a street car mirror until she is exhausted. Starting near the top of the mirror, the bird pecks and claws the glass, until she slides to the bottom. Then she flies up again, her wings whirling like those of a humming bird, her tail spread fan shape like an angry eagle. An authority on ornithology says the cause of the attacks is jealousy; she thinks that some other bird is attempting to displace her in her mate's affections.

* * *

Switch Catches Skunk

One night recently Boston and Maine Train Director Andrew Stah, at Johnsonville, N. Y., attempted to throw a remotely controlled switch at Eagle Bridge. When the indicator failed to show that the tracks had been lined for the desired cross-over movement, he used another route instead. The following morning Leon Downing, a Western Union Lineman, discovered the difficulty. A skunk had been caught between the points of the switch. The only aftermath of the incident was the lineman's firm assertion that he would never remedy such a situation again even if provided with a gas mask.

Railway Laws

In a recently published treatise, Miguel Martin-Montalvo, Secretary of the Railway Tribunal of Spain, gives a comprehensive survey of Spanish railway law. The reader who peruses its 462 closely written pages, finds it amazing how closely the ideas of railway regulators in Spain follow those in this country.

* * *

Famous Cowboy-Fireman

With the recent death of F. E. Jones, old-time cowboy, the west lost one of the most picturesque characters of its pioneering days. At the age of fourteen he drove to Montana the first herd of cattle ever driven from Texas to Miles City. Mr. Jones continued as a cowboy until 1887, when he became a fireman on the Northern Pacific.

* * *

Unusual "Life Guard"

The cog train which has carried thousands of tourists to the top of Pike's Peak was used during the past winter to rescue five persons from the mountain summit. Huge drifts of snow across the automobile highway and the numerous trails on the side of the mountain prevented five employees of the Summit House from descending. A telephone call to Manitou, at the foot of the peak, was made and the cog train was called into service to effect the rescue.

* * *

Life Card Passes

The Boston and Maine has issued 228 passes to active and pensioned employees with fifty or more years of service, each good for the life of the recipient. The passes are lettered in gold in recognition of the fact that each of these employees began his service more than 50 years ago. C. J. Fiske, Greenfield, Mass., ticket agent, who had been in the company's employ 61 years and three months, received pass No. 1.

Locomotive vs. Camel!

"When a locomotive hits a camel on the Dakota prairie, that's news," says the *Railway Age*. Continuing, it adds, "And if the locomotive happens to be the largest steam engine in the world, that's just too bad for the camel. A few days ago, 'Old Charlie,' a camel which was housed at Bagdad Park, Dickinson, N. D., found an opening in the enclosure and wandered out on the Northern Pacific tracks where he disputed the right-of-way with one of the '5,000'-type 1,118,000-pound locomotives, which was drawing a freight train. 'Old Charlie' died of a broken neck."

* * *

Famous Ancestors

Three employees of the Pennsylvania Railroad, G. P. Fletcher, machinist, R. S. Fletcher, retired conductor, and W. I. Fletcher, retired watchman, claim the distinction of being the only railroaders in the country who are the direct descendants of an Indian queen. One of their ancestors was the famous Frances Slocum, the white child who was captured by a tribe of Delaware Indians on November 2, 1778, and carried from her home on the present site of the city of Wilkes-Barre, Pa. She lived with them for many years, eventually becoming their queen.

* * *

Rare Old Engine

James V. Enright, a Polk Street (Chicago) station employee, has a memento of the World's Columbian Exposition, held in Chicago in 1893, in the form of a railroad ticket issued by the Pennsylvania when operating at the fair grounds. "On one side is the quotation, 'Good only on the 'John Bull' train.' It also bears a photograph of the 'John Bull,' its tender, and two cars, as exhibited at the exposition. This old locomotive, which was in regular train service from 1831 to 1870, made the trip from New York to Chicago, unassisted, in five days, in April, 1893.

Knockers



DID you ever hear an anvil
Pealing forth its silver chimes
As the blacksmith with his hammer
Beats upon it many times?
Did you ever note the hammer
With its face all battered back
Ready now to be discarded
And thrown out among the scrap?
But the anvil, still uninjured,
Without blemish, break or crack
Humbly stands there, always ready,
Waiting for a new attack.
Still the good old faithful anvil,
When the blacksmith's life is done.
Rings the knell of many hammers
In the hands of smithy's son.

—*M-K-T Magazine.*